

Teacher Notes BTEC Unit 4 Assignments

General Information

This guide has been put together as an illustration on how to deliver the Unit content for BTEC Assignment 4 – Programming.

The guiding principle has been that when the specification mentions something as plural, it is assumed that the examiners will want to see more than one thing discussed e.g. comparing factors between languages assumes 3 different languages, but you may be able to get away with only 2. Confirm this with your LIV or EV.

It is expected that all students will complete all PASS criteria tasks, as this covers the taught specification.

When presenting screenshots as evidence, the key is that the screenshots are annotated to explain to the reader what information the evidence is presenting. Using Callouts is the easiest way to direct the reader to the evidence presented.

Every single item in the specification has been included in these guides and you might decide to eliminate some to benefit your students.

For example, the specification states for topic A4:

- Programming languages, constructs and techniques, including:
 - command words
 - constants and variables, local and global variables
 - data types – character, string, integer, real, Boolean
 - statements – assignment, input and output, sequence, iteration, selection
 - logical operations.

This would indicate that all of these topics need to be included.

The specification then states:

- Other constructs, such as:
 - subroutines, functions and procedures
 - string handling, including examining single characters and substrings
 - arrays – two-dimensional and three-dimensional, splitting and joining
 - file handling – open, read, write, close, database
 - data structures
 - event handling.

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This implies only some of these constructs need to be included as evidence by the student and it is down to you to which of the requirements you cover. Personally, I would cover about four of these to be on the safe side.

The BTEC Assessment Guidance states:

"Assessors are expected to deliver (i.e. 'teach') the unit content fully.

You must cover all the elements of content, apart from anything preceded by 'e.g.' which is merely an example of what you may choose to cover.

A learner is not required to provide evidence for all the unit content but is required to provide sufficient evidence to address the assessment & grading criteria to successfully achieve the unit"

https://qualifications.pearson.com/content/dam/pdf/BTEC-Firsts/news/Guide_to_Internal_Assessment_for_BTEC_Firsts_and_Nationals.pdf, Page 7

This is down to you and how you wish to teach the unit. Having a student guide as a set of PowerPoint slides means that you can move them around to suit your teaching style before handing them out to the students.

The student guide has been put together as follows:

- Group P1 items together into smaller sets
- At the end of the group, assess the overall effectiveness of the items for a merit.
- At the end of the group, evaluate the items with regard to the impact on software design for a distinction.
- Repeat for P2 and P3

In addition, it is not expected that everything be assessed and evaluated, you can decide in your teaching which merit and distinction slides can be omitted by what material you have covered and what fits the learning profile of your group best

For merit, there needs to be a clear evaluation of the advantages and the disadvantages of the item under discussion. If a conclusion is made with a reason, this takes the candidate into Distinction levels.

The key for each distinction criteria is that there needs to be a firm conclusion, based on the evidence that the feature will or will not have an impact on the design of the solution as well as the quality of the final program, including a clear justification. Simply saying it will have an impact is not good enough.

In order to make these assignments less daunting to weaker candidates, there are 3 copies of the Guide: one that has all the pass criteria only, one that has pass and merit, one that has pass, merit and distinction. These can be assigned appropriately to the relevant candidates should you wish

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DISCLAIMER

It is down to you, the teacher, how you use these resources.

They have been made available to you as a set of editable PowerPoint slides as well as some read only PDF documents.

These documents have been written primarily as a guide to the assignments for students who find it challenging to organise their work, or to work independently, or who have an SLD, so that they can have a simple, clear step by step guide on exactly what they need to put together as evidence. They can also be used as part of your general teaching as many students can find the sheer quantity of material they are required to produce daunting.

These guides have been designed as a learning resource to aid your teaching during the assignment. The assessment guidance from Pearson states that while the assignment is running, you are NOT allowed to:

"give them a specific list of actions they need to take to meet the assessment criteria or achieve a particular grade"

https://qualifications.pearson.com/content/dam/pdf/BTEC-Firsts/news/Guide_to_Internal_Assessment_for_BTEC_Firsts_and_Nationals.pdf, Page 18

You are however allowed to give your students:

"access to a range of information to help them generate evidence:

- *knowledge and skills gained during teaching on the programme*
- *handouts and learning resources available for the programme*
- *the unit content, assessment criteria and assessment guidance in the qualification specification*
- *the assignment brief, detailing the scenario, specific tasks, evidence and information sources"*

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The student guides therefore form part of the learning resources available for the Programme to be issued to students prior to the start of the assignment.

Should you wish to use these learning resource guides specifically as templates for your students to complete, you should first check with your Lead Internal Verifier (LV) and your Standards Verifier (SV) that they are happy for templates to be issued to your cohort. You should not issue these as templates for use by your learners without checking with the relevant Pearson Administrative Staff.

TheComputingTutor cannot be held responsible for any modification to any assessed grades or disqualification of any Candidate or group of Candidates as a result of the deliberate or unintentional misuse of these guides as a template, should your institution's SV or LV determine that these are not suitable.

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Assignment 1

This documentation has been designed to thoroughly cover the BTEC specification for Unit 4 – Programming.

The key to approaching this assignment is the range of materials provided by the Teacher.

For P1 and P2, to access Merit and Distinction criteria, is expected to assess the impact that these features will have on the design of the software.

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